

AMENDMENTS TO THE CLAIMS:

This listing of claims replaces all prior versions and listings of claims in the application:

LISTING OF CLAIMS:

1. (Currently Amended) An acoustic wave transducer comprising Transducer that works with surface acoustic waves and contains:

an acoustic spur (AS) that has comprising electrode fingers of for different electrodes, (E1, E2) that engage the electrode fingers engaging to form exciting finger pairs one another, the acoustic spur comprising marginal areas and an excitation area, the electrode fingers engaging in the excitation area, the marginal areas and the excitation area being located along a transverse direction of the acoustic wave transducer;

whereby in the acoustic spur (AS) an acoustic wave is excitable that is characterized by a transversal basic mode,

whereby the acoustic spur (AS) is divided in the transversal direction (Y) into an excitation area (MB) and two marginal areas (RB1, RB2),

whereby the wherein a longitudinal phase speed of the an acoustic wave in the acoustic spur is less in a marginal area (RB1, RB2) is less than in the excitation area; (MB),

wherein the acoustic wave is excitable and has a transversal basic mode;  
whereby wherein the following applies in the transversal basic mode for the a wave number k<sub>y</sub> of the transversal basic mode the following applies:

$(k_y)^2 > 0$  in a marginal area (~~RB1, RB2~~) and

$(k_y)^2 < 0$  in an exterior area (~~AU1, AU2~~) outside the acoustic spurs;  
and (AS),

~~whereby wherein in the excitation area (MB)  $k_y$  is numerically substantially smaller in the excitation area than in the marginal areas (~~RB1, RB2~~) and in the exterior area areas (~~AU1, AU2~~).~~

2. (Currently Amended) The acoustic wave transducer of Transducer in accordance with claim 1, wherein in which  $k_y$  [= 0] equals about zero in the excitation area (MB).

3. (Currently Amended) The acoustic wave transducer of Transducer in accordance with claim 1, in which wherein the excitation area (MB) is divided in the transversal direction (Y) into several comprises partial spurs in the transverse direction, (TB1, TB2, TB3, TB4) the partial spurs corresponding that correspond to partial transducers that are switched to one another interconnected in series and/or in parallel.

4. (Currently Amended) The acoustic wave transducer of Transducer in accordance with claim 3, whereby wherein the partial spurs are substantially identical in a designed identically in the longitudinal direction, and at least two of the partial spurs have different widths; and (X) up to their width,

~~whereby the width of wherein the partial spurs is selected so have widths that adapt~~  
~~a the transversal profile  $\Psi_y$  of the an excitation strength in the excitation area (MB) is~~  
~~adapted to the a shape  $\Phi_y$  of the transversal basic mode.~~

5. (Currently Amended) The acoustic wave transducer of Transducer in  
~~accordance with claim 3 or 4, in which the following applies for adapting the transversal~~  
~~profile  $\Psi_y$  of the excitation strength to the shape  $\Phi_y$  of the transversal basic mode, where~~  
“y” corresponds to the transverse direction:

$$\int \Psi_y \Phi_y \, dy / \sqrt{\int \Psi_y^2 \, dy \cdot \int \Phi_y^2 \, dy} \geq 0.9 .$$

6. (Currently Amended) The acoustic wave transducer of claim 3, Transducer in  
~~accordance with any of claims 3 through 5, in which wherein the partial spurs comprise~~  
~~have a center partial spur (MT) and two marginal partial spurs; (RT1, RT2),~~  
~~whereby wherein the marginal partial spurs (RT1, RT2) are switched~~  
~~interconnected in series with one another and form a serial series circuit[[,]];~~  
~~whereby wherein the serial series circuit is switched connected in parallel to the~~  
~~center partial spur; and (MT),~~  
~~whereby the wherein a width of the center partial spur (MT) is greater than a the~~  
~~width of the a marginal partial spur (RT1, RT2) by at least a factor of five [[5]].~~

7. (Currently Amended) The acoustic wave transducer of claim 1, wherein Transducer in accordance with any of claims 1 through 6, in which the marginal areas (RB1, RB2) are each designed as each comprise a continuous metal strip in the a longitudinal direction and with have a transversal transverse width of  $\lambda_y/4$ , where  $\lambda_y$  is a wavelength of the transversal basic mode in a corresponding marginal area.

8. (Currently Amended) The acoustic wave transducer of Transducer in accordance with any of claims 1 through 6, in which the claim 1, wherein a number of the electrode fingers per unit of length is greater in the marginal areas (RB1, RB2) is greater than in the excitation area (MB).

9. (Currently Amended) The acoustic wave transducer of claim 1, Transducer in accordance with any of claims 1 through 8, in which wherein the electrode fingers for of different electrodes (E1, E2) are arranged in the excitation area (MB) on define a periodic grid in the excitation area.

10. (Currently Amended) The acoustic wave transducer of Transducer in accordance with any of claims 1 through 8, in which claim 1, wherein the excitation area (MB) in the longitudinal direction is divided into comprises unidirectionally radiating or reflecting cells in a longitudinal direction of the acoustic wave transducer; and[[],]

~~whereby several~~ wherein electrode fingers in the excitation area (MB) that are adjacent to one another in the longitudinal direction form define a cell with ~~radiation of~~ to radiate the acoustic wave in a ~~preferred~~ specific direction or a cell with a reflecting effect.

11. (Currently Amended) The acoustic wave transducer of Transducer in accordance with any of claims 1 through 10, in which, in addition to the first acoustic spur (AS), claim 1, wherein the acoustic spur is a first acoustic spur, and wherein the acoustic wave transducer further comprises:

~~at least one additional acoustic spur (AS') is provided that is divided into comprising an excitation area (MB') and marginal areas (RB1', RB2'), the at least one additional acoustic spur being substantially and is constructed largely identical to the first acoustic spur (AS), whereby wherein the acoustic spurs (AS, AS') first acoustic spur and the at least one additional acoustic spur are arranged parallel; and to one another,~~

~~whereby an intermediate area (ZB) is arranged between two acoustic spurs;[ , ] whereby the wherein widths of the marginal areas (RB1, RB2, RB1', RB2') of the acoustic spurs (AS, AS') are selected so that the produce a wave number  $k_y$  in the intermediate area (ZB) is numerically that is smaller by at least one order of magnitude than in the marginal areas (RB1, RB2) and in the exterior areas of the acoustic spurs; and (AU1, AU2),~~

~~whereby the wherein~~ a phase speed in ~~the~~ excitation areas (~~MB, MB'~~) of different acoustic spurs (~~AS, AS'~~) and in the intermediate area (~~ZB~~) is essentially ~~the~~ same.

12. (Currently Amended) The acoustic wave transducer of Transducer in accordance with claim 11 [[1]], in which the wherein a number of electrode fingers per unit of length in the intermediate area (ZB) is essentially equal to ~~the~~ a number of electrode fingers per unit of length in ~~the~~ excitation areas (~~MB, MB'~~) of different acoustic spurs (~~AS, AS'~~).

13. (Currently Amended) The acoustic wave transducer of Transducer in accordance with claim 12, in which the wherein electrode fingers in the intermediate area (~~ZB~~) are arranged on define a periodic grid.

14. (Currently Amended) The acoustic wave transducer of claim 1 Transducer in accordance with any of claims 1 through 13, whereby the wherein a width of a marginal area (~~RB1, RB2~~) in the ~~transversal~~ transverse direction is essentially  $\lambda_y/4$ , whereby where  $\lambda_y$  is ~~the~~ a wavelength of the transversal basic mode in ~~the~~ a corresponding marginal area (~~RB1, RB2~~).

15. (Currently Amended) A filter comprising the acoustic wave transducer of claim 1 Filter with at least one transducer in accordance with claims 1 through 14.